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14 Equations & Inequalities

$<$ $>$ \neq $<$ $>$

is \angle
less
than

is $>$
greater
than

less than -
greater than +

VOCAB!

Equation: formed when an equal sign is placed between two expressions.

Equation:

$$2m - 9 = 5$$

$$12x + 9 = 21 + 9x$$

Expression:

$$9 + a$$

$$51x + 33 - 2y$$

???

Check whether the numbers are solutions to the equation:

1. $12x + 5 = 125$; 10

2. $8m - 20 = 52$; 3

Inequality: formed when an inequality symbol is placed between two expressions.

Inequality Symbol	Words
<	Less than
>	Greater than
≤	Less than or equal to
≥	Greater than or equal to
≠	Not equal to

Check whether the numbers are solutions to the inequality.

3. $2x - 1 > 5$; 4

4. $x - 2 < 6$; 8

5. $3x^2 \leq 52$; 5

Write an equation or inequality for each statement:

6. Connor has no more than \$25.00.

$$\begin{array}{c} < & \leq \\ > & \geq \end{array} \cdot C \leq 25$$

$$25 \geq C$$

7. Sarah has at least two books.

$$s \geq 2$$

$$2 \leq s$$

8. Reggie ate less than 25 treats.

$$r < 25$$

$$25 > r$$

9. Taylor went on at most 7 walks.

$$t \leq 7$$

10. Ruth is 3 years younger than Bucky.

$$r = b - 3$$

Write an equation or inequality for each statement:

11. This sum of twelve and a number is forty five.

12. Twice a number is greater than 27.

$$2x \quad x \cdot 2 > 27$$

13. 54 is at least half a number times four.

$$x2 \quad x^2$$

14. Five less than a number is three more than the same number.

